



MEMORANDUM

To: City of Grand Rapids / Mobile GR

From: Nelson\Nygaard Consulting Associates

Date: September 4, 2019

Subject: Travel Demand Management (TDM) Existing Conditions Assessment

INTRODUCTION

To support the development of a citywide Transportation Demand Management (TDM) framework, an assessment of the current state of TDM in Grand Rapids was performed and is summarized in this Existing Conditions Assessment. This assessment establishes that Grand Rapids possesses many of the foundational elements of a citywide TDM framework through a variety of TDM plans, policies, programs, and services. However, it also shows there are opportunities to collaborate and pool resources, facilitating a more comprehensive and effective citywide framework that promotes and delivers programs and services to more travelers.

This report covers the following topics:

- TDM in Existing Plans, Policy, Regulations and Funding
- Demographics of Mobility in Grand Rapids
- Multimodal Transportation Network
- User-Focused TDM Programs & Services

This Existing Conditions Assessment follows the above outline to identify strengths, challenges, and opportunities in Grand Rapids and better prepare the Mobile GR and Parking Services Department (Mobile GR) and its partners to enhance transportation networks, support economic development, connect residents, and create the healthy and vibrant community Grand Rapids aspires to be. This report further lays the groundwork for achieving the objectives and strategies of the Equitable Economic Development and Mobility Strategic Plan.

Key Findings

- The City of Grand Rapids has several planning documents, policies and regulations that provide high level direction for the implementation of TDM within city planning efforts. Currently, there is no definitive TDM ordinance in the city's zoning code, and no centralized strategy, structure, funding, or lead organization for TDM at the citywide or regional scale.
- There is a lack of defined metrics, consistent tracking and/or measuring of TDM performance. However, data collection and broader TDM assessment efforts have started to take shape through the delivery of the Grand Rapids Commuter Census. The Commuter Census is intended to be an annual survey and report, and in this way serves as an ongoing local record of commuter behavior and trends.

- The City has strong community partners that have helped implement and explore innovative programs that promote walking, biking, and transit in Downtown. However, there is opportunity to increase and continue collaboration with stakeholders at the local and regional levels.
- Funding for TDM programs are services are primarily provided through government agencies and departments, with some federal CMAQ funding provided for some of the regional services. There are no other forms of funding for TDM programming on the citywide level at this time.
- Some TDM infrastructure and facilities are publicly accessible and have received recent improvements, such as pedestrian facilities in the downtown and commercial districts. Bicycle parking is also publicly available, with some bicycle lockers available at a few city-owned parking garages. But there are still many necessary improvements, as most of the city's existing bicycle network is in mixed-traffic conditions, and the majority of the planned additions to the network are for similar conditions.
- Grand Rapids has several publicly available TDM programs provided by various agencies, including:
 - Carpool and vanpool services
 - Subsidized transit services
 - Guaranteed Ride Home programs
 - Promotional and informational resources
 - Promotional events
- Several employers and educational institutions in Grand Rapids provide TDM programs to their employees or community, limiting access to those programs to their users, as they generally operate independently.
- Commuters have demonstrated a willingness to shift travel behaviors based on the availability of one or more incentives (such as discounted transit passes or parking “cash out”), as well as the potential to reduce their carbon footprint.

TDM IN EXISTING PLANS, POLICY, REGULATIONS, & FUNDING

To better understand how TDM is currently being framed and implemented in Grand Rapids, a review of existing planning documents, policies, regulations, and funding sources was performed and is summarized in the section below. The review covers both regional and local efforts, as travel behaviors cross municipal boundaries, even when plans and policies may not. This information will identify the tools, stakeholders, and strategies that are currently in practice and will begin to establish a shared rationale for the development of a citywide TDM framework that effectively serves users in Grand Rapids.

Regional

Align: The Rapid's Transit Improvement Plan (2018)¹

The Interurban Transit Partnership (The Rapid) is the region's largest public transit provider, servicing Grand Rapids and five surrounding cities. *Align* identified, analyzed and prioritized a

¹ <https://www.ridetherapid.org/future-planning/align-transit-improvement-study>

set of transit improvements that can be made to the existing bus system to improve the transit experience in these communities. While TDM is not explicitly called out in the plan, these improvements could have significant bearing on TDM programs, including expansion of The Rapid's service area and programs that better reach and serve audiences who both currently rely on transit or could be tapped to grow ridership. Relevant *Align* goals include:

1. Provide enhanced transit service options to grow ridership and improve reliability
2. Improve equitable access to transit services
3. Prioritize future transit enhancement projects that maximize positive regional impact
4. Foster transit supportive land use policies and encourage economic development
5. Develop and select implementable investments that have community support

Project types included new potential BRT corridors, amenity enhancements, infrastructure enhancements, service enhancements, and expansion opportunities.

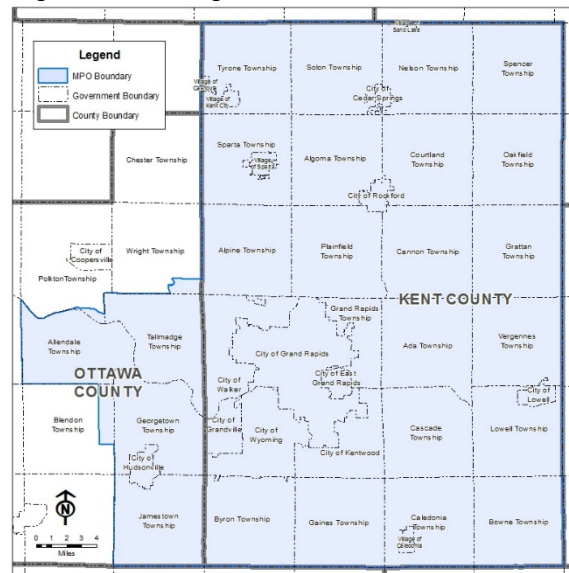
Grand Valley Metropolitan Council 2040 Metropolitan Transportation Plan (2015)²

As the Metropolitan Planning Organization (MPO) for Kent and eastern Ottawa Counties, the Grand Valley Metropolitan Council is responsible for the development of a multi-modal Long Range Metropolitan Transportation Plan (MTP). The purpose of the MTP is to ensure that transportation investments enhance the movement of people and freight efficiently, effectively, and safely. The MTP also plays a critical role, as it is a key factor for receiving federal transportation funding for transportation investments in the region.

TDM is referenced as a key objective of the 2040 Plan and plays a role in supporting the vision of the plan. Objective 11 specifically recommends the region utilize TDM practices to manage traffic growth, improve system efficiency, mitigate congestion and spread travel demand across more hours of the day to more effectively use the area's transportation system.

TDM is also referenced in the plan as a supportive measure for evaluating land use development alternatives and transportation improvement strategies, and the Plan specifically recommends using TDM to support strengthening the link between transportation and land use policies to encourage people and businesses to live and work in a manner that improves access to the entire transportation system for all users.

Figure 1 GVMC Region



Source: <https://www.gvmc.org/about-mpo>

² <https://www.gvmc.org/mtp>

Citywide

City of Grand Rapids Strategic Plan (2019)³

The 2019 Strategic Plan is the first strategic plan developed for the City of Grand Rapids. The Plan was established to guide the City's operations and financial investments and support the City's Master Plan and Fiscal Plans. The Plan defines strategic priorities for the City of Grand Rapids, and details the desired outcomes, objectives, strategies, and draft metrics to ensure that they effectively achieve and support the City's vision of being nationally recognized as an equitable, welcoming, innovative and collaborative city with a robust economy, safe and healthy community, and providing the opportunity for a high quality of life for all. Mobility is identified as one of the priorities of the strategic plan, and identifies several strategies related to TDM.

Mobility Objectives and Strategies

The mobility section of the Strategic Plan focuses on facilitating innovative, efficient, and equitable mobility solutions that are safe, affordable and convenient to the community. This is further supported by four mobility objectives and several strategies, some of are directly associated with TDM. The mobility objectives and strategies include:

Objective 1 - Create an accessible multi-modal transportation experience and reduce single-occupant vehicle travel. This is further supported by the following strategies:

1. Improve ridership on and explore expansion of the fare free transit network and The Rapid
2. Increase biking by improving bicycle network and ensuring facilities are maintained
3. Increase walkability by increasing sidewalk network and ensuring facilities are maintained
4. Create employment related transportation solutions within Neighborhoods of Focus
5. Reduce household transportation costs and eliminate cost barriers to accessing mobility solutions

Objective 2 - Pursue innovative, 21st century mobility options. This is further supported by the following strategies:

1. Pilot new mobility programs (carshare, bikeshare, e-scooter and universal dispatch application), and ensure that they are available and accessible in each Ward and the Neighborhoods of Focus
2. Develop a regional mobility and transportation demand management program with public and private partners
3. Pilot autonomous and connected vehicle services
4. Complete and shared micro-mobility plan that includes bikeshare and e-scooters
5. Create innovative and active City fleet programs and travel options for City employees

Objective 3 - Develop an effective, customer responsive parking system. This is further supported by the following strategies:

³ <https://www.grandrapidsmi.gov/Government/Departments/Office-of-the-City-Manager/Strategic-Plan-Update>

1. Develop future proofed parking developments (e.g. parking facilities that can convert to other uses)
2. Educate and inform the public on parking options and new technology
3. Develop a Parking Master Plan to guide future investments
4. Modernize parking equipment to allow for multiple forms of payment

Objective 4 - Operate and maintain the City's transportation network and work with partners to connect to the regional transportation network. This is further supported by the following strategies:

1. Coordinate transportation investments with regional partners
2. Develop, operate and maintain transportation infrastructure (e.g. signals, sidewalks, roads/streets and bridges)
3. Perform critical needs assessment of freight and goods infrastructure
4. Complete the Equitable Economic Development and Mobility Strategic Plan

Related Objectives and Strategies

In addition to the mobility objectives and strategies, which are directly associated with TDM and transportation planning, there are several other objectives within the Strategic Plan that are related to TDM, including:

- **Governmental Excellence**
 - Objective 2: Foster and maintain fiscal sustainability.
 - Objective 5: Leverage technology systems to support secure data collection and storage, performance management, decision making, internal communications and data sharing with the community.
 - Objective 6: Update the Master Plan to enable smart equitable growth.
- **Economic Prosperity and Affordability**
 - Objective 1: Support a resilient business environment by optimizing processes and regulations for property development and business-related permitting and approval processes and regulations.
 - Objective 2: Support the creation, retention and growth of business.
- **Engaged and Connected Community**
 - Objective 1: Enhance communication with the public.
 - Objective 2: Develop a community engagement strategy across all City programs and initiatives.
- **Health and Environment**
 - Objective 1: Reduce carbon emissions and increase climate resiliency.
 - Objective 5: Collaborate with and support partners working to reduce health disparities and the resulting undesired outcomes.

Draft Metrics

The Strategic Plan identifies draft metrics for achieving the above objectives. These metrics provide accountability to ensure that the objectives are achieved and can provide additional motivation to ensure that action is taken in implementing the strategies. Some of the metrics are

especially relevant to supporting the goals of the Equitable Economic Development and Mobility Strategic Plan, including, but not limited to:

- Shifting to 55% of trips to work where people use transit (20%), walk (10%), bike (5%), and rideshare (20%) by 2035
- 150,000 jobs accessible in a 30-minute transit ride
- 85% occupancy for on and off-street parking

While many of the goals identified in the Strategic Plan have yet to be formally adopted, they demonstrate the City is setting up a measurable framework to ensure they are achieved.

City of Grand Rapids Zoning Ordinance (2018)⁴

TDM References

TDM is referenced in the Zoning Ordinance as a development tool to gain development height bonuses and to reduce off-street parking requirements.

Bonus Height Qualifications

The Zoning Ordinance specifically references TDM in Section 5.8.02 as one of the potential elements to include as a Green Element for bonus height qualifications in Downtown Height Overlay District areas. TDM options include:

- Incorporation of bicycle parking facilities, for employees or patrons, meeting requirements of Section 5.10.10
- Submission of a TDM program, approved by the Director, and reviewed by the City Engineer and Mobile GR. The TDM program can include several modal programs, alternative work scheduling, or other measures that are designed to moderate traffic demands on adjacent streets.

Off-Street Parking Reductions

TDM is also referenced in Section 5.10.05 as a method in using alternate modes of transportation to reduce off-street parking requirements. The code has identified the completion of a TDM study may be required to demonstrate that a sufficient number of motor vehicle drivers already use or would immediately opt for transit, so a development would not require as much automobile parking on-site or at surrounding properties.

Parking and TDM References

Parking plays a strong role in the effective implementation of TDM. The zoning ordinance includes additional language that reduces the amount of automobile parking being built through new development, and inherently establishes a stronger role for TDM.

Shared Parking Agreements

Section 5.10.05.E describes the parameters for permitting Shared Parking Agreements. Approvals for shared parking agreements are possible for mixed-land use projects and easements but are subject to review to ensure that they meet specific criteria.

⁴ <https://www.grandrapidsmi.gov/Government/Programs-and-Initiatives/Zoning-Ordinance>

Parking Maximums

In May 2017, the City adopted amendments to the Zoning Ordinance to replace automobile parking minimums with parking maximums. This allows developers to determine how much automobile parking is necessary for the users of the development, and in the case a developer seeks to exceed the maximum, they would be required to pay into a Downtown Mobility Fund. However, no fee has been determined for developers who exceed the parking maximum.

Payment-In-Lieu

The Zoning Ordinance also contains language that provides an option for developers to build below the required automobile parking minimum for a set fee. However, no fee has been determined for developers looking to build below the minimum number of required parking spaces.

City of Grand Rapids Draft Bicycle Action Plan (2019)⁵

The City of Grand Rapids' Draft Bicycle Action Plan aims to accommodate, support and encourage people to ride bicycles in Grand Rapids, and is designed to accommodate changes in Grand Rapids to invest in bicycling and envisions a future where the City accommodates and support people who will ride bicycles for any trip purpose.

Vision and Goals

The Bicycle Action Plan is guided by the vision that riding a bicycle for transportation and recreation is a safe, comfortable and integral part of daily life in Grand Rapids for people of all ages, abilities and socio-economic levels. The Plan's vision is further supported by seven goals that help guide the successful achievement of the Plan, including:

- Connectivity – Make significant progress on the development of a lower-stress bicycle facilities network.
- Safety – Improve safety for all modes of transportation.
- Comfort – Increase the level of comfort for people when they are bicycle regardless of the types of trips they are taking.
- Equity – Provide equitable access to bicycling for all members of the community.
- Ridership – Increase the amount of bicycling for all trip purposes.
- Community – Foster a strong bicycle community identify and a culture of respect and responsibility for all people traveling in Grand Rapids
- Health – Increase access to bicycling to achieve a more physically and environmentally healthy community.

Recommendations

Several City plans and policies include bicycle recommendations, but there is no overarching bicycle transportation strategy or plans. The recommendations in the Bicycle Action Plan work to achieve the 5 E's of bicycle planning – Education, Encouragement, Enforcement, Engineering, and Evaluation. The Plan's recommendations are related to bicycle facilities design standards, network enhancements, increased safety and enforcement, bike share programming, information resources, programs and activities, maintenance and operations,

⁵ <https://www.grandrapidsmi.gov/Government/Programs-and-Initiatives/Bicycle-Action-Plan>

While many of the detailed recommendations are related to TDM, a few of the actions are discretely associated with TDM, specifically from the bicycle-related programs and activities recommendations, including:

- Recommendation I-6: Incorporate effective and targeted bicycle-related transportation information, programming and services in the TDM plan elements of the City's forthcoming Equitable Economic Development and Mobility Strategic Plan.
- Recommendation I-11: Include bicycling information and incentives in targeted TDM marketing campaigns and digital multi-modal commuter tracking platforms provided by the City and other partners engaged in TDM efforts like The Rapid/Interurban Transit Partnership, areas colleges, local and regional businesses, business improvement districts, etc.

Grand Rapids Citywide TDM Plan - Vital Streets Design Guide Appendix (2017)

To support the Vital Streets Initiative, a Citywide TDM Plan was drafted, building upon the GR Forward Parking and Mobility Study and policies and actions identified in the Citywide Strategic Plan. This Plan recommended embracing the elements of the other plans and study documents as the core components of a Citywide TDM Plan. The high-level recommendations of the Citywide TDM Plan included:

- Creating a TDM Coordinating Committee
- Supporting Core Mobile GR Strategies
- Establishing and Maintaining Complementary TDM Strategies
- Monitoring Key Performance Indicators

These recommendations were further supported by several actions, including, but not limited to:

- Supporting a transition to demand-based parking rates
- Revising the zoning code to incentivize TDM and adjust parking requirements
- Developing promotional events and activities
- Monitoring TDM effectiveness

The Plan also identified Key Performance Indicators in measuring the impact of each TDM action.

GR Forward: Appendix IV – Parking and Mobility Study (2015)⁶

GR Forward is a community plan and investment strategy outlining a vision for the future of Downtown and the Grand River. TDM measures play a role in achieving the goals of the plan, in particular, those of Goal 3: Implement a 21st Century Mobility Strategy. Within this goal, TDM would support the following strategies:

- Provide a stress-free pedestrian experience for all ages and abilities
- Establish the Mobile GR and Parking Services Department
- Complete the networks in and out of Downtown
- Utilize technology to make getting around easier
- Put Grand Rapids 'on the map', marketing the City's regional connections, improving the 'arrival experience' and navigation and wayfinding

⁶ <https://www.grandrapidsmi.gov/Government/Programs-and-Initiatives/GR-Forward>

While several of these strategies are a work-in-progress, the City has already followed through on Goal 3.2 by establishing the Mobile GR and Parking Services Department to provide mobility and parking services in support of the community's economic development and quality of life goals. TDM efforts will also factor significantly into the achievement of Goal 4 – Expand Job Opportunities & Ensure Continued Vitality of the Local Economy – by enhancing access to work for local residents.

A Parking and Mobility Study was also performed to support the GR Forward Plan. The study identified a path toward a formal embrace of TDM as a core strategy for managing the City's automobile parking assets, supporting sustainable growth, and achieving greater balance and higher levels of service among the area's multimodal transportation networks. The study assessed commute mode splits, and found that, in addition to addressing parking supply, there was a need to develop more options for people to get to and circulate within Downtown in order to reduce parking demand, especially with the projected increase of residents and employees.

The study recognized that the implementation of new options would require time to build awareness, usage and success, and offered initial frameworks to understand how each TDM measure could be implemented and evaluated. The study recommended working with the Planning Department to develop a Parking and TDM Ordinance for new developments to replace the existing ordinance to address the impacts of new developments. Recommendations were organized into a five-year strategic plan, to help outline a phased approach in rolling out the TDM program.

Grand Rapids' Michigan Street Transportation Demand Management Strategy (2013)⁷

In 2013, the Michigan Sense of Place Council partnered with Smart Growth America to provide technical advisory services to six communities pursuing livable communities initiatives, including the City of Grand Rapids. The primary focus of the work with Grand Rapids included community mobility management and strategic TDM, with a specific focus on supporting and sustaining the growth of the "Medical Mile" and using TDM to leverage and connect the growth of the area to other areas of the city.

The strategy development included thorough review of best practices and existing local approaches, and was organized into the following:

1. Review of leading national practices and assessment of existing local resources and opportunities
2. Discussion of alternative approaches and strategies
3. Development of an action strategy for implementation

The Strategy provides a detailed framework of recommendations for pursuing effective implementation of TDM, including the organization frameworks, and specific modal management strategies and operational solutions. The implementation recommendations are further supported by providing cost estimates and timeline recommendations and identifying potential funding sources and responsible stakeholder to lead the implementation of the recommendation.

⁷ <https://smartgrowthamerica.org/resources/grand-rapids-mi-transportation-demand-management-strategy/>

While this was focused on “Medical Mile”, it includes several recommendations that could be applicable on a citywide scale.

City of Grand Rapids Green Grand Rapids Plan (2012)

The Green Grand Rapids Plan provides green infrastructure, sustainability, and quality of life objectives and policy strategy recommendations that help address the challenges that had come up following the 2002 update of the City’s Master Plan.

The Plan discussed the theme of Balanced Transportation, which was identified in the 2002 Master Plan, and identifies the vision and accomplishments of the plan to date. This section of the Plan also included specific recommendations, primarily around coordinated transportation and land use decision making and using a Complete Streets approach. These recommendations include:

- Balance the use of street rights-of-way to accommodate pedestrian and bicycle needs, as well as transit, trucks and personal vehicles;
- Design streets to enhance safety, improve walkability and create “green” image corridors;
- Provide off-street walking and cycling trails;
- Support transit through land use, site planning and street design decisions;
- Reduce the extent to which highways create barriers to movement; and
- Manage parking supply and demand and improve parking lot location and design.

The Balanced Transportation recommendations include several objectives and policy strategies which can all support or be related to TDM efforts, a few specific policy strategies specifically tie in TDM to support the recommended objectives of the Balanced Transportation section, including:

- Objective BT 6 – Increase the use and effectiveness of transit: Coordinate parking, TDM and transit strategies to reduce peak hour congestion and on-site parking needs.
- Objective BT 8 – Encourage the development of TDM programs by major employers and at major employment and activity centers to reduce peak hour congestions and on-site parking needs.

TDM is also specifically referenced as a strategy for managing parking demand, and recommends that these approaches be coordinated with parking supply, such as parking pricing, and also recommends using TDM programs, requiring that employers provide incentives for employees to use transit, share rides via carpool or vanpool, and walk or bicycle to work.

The Plan also provides specific implementation recommendations, identifying tools and resources necessary to successfully implementing the strategies, including establishment of principles for success, establishing priorities, city implementation tools (such as zoning ordinance updates, performing citywide studies etc.), and monitoring and reporting progress.

City of Grand Rapids Master Plan (2002)⁸

Balanced Transportation is a key theme of the City’s 2002 Master Plan, which is described as supporting the coordination of transportation and land use decisions to reduce dependence on

⁸ <https://www.grandrapidsmi.gov/Government/Programs-and-Initiatives/Master-Plan>

the automobile, provide choice in travel modes and to balance the needs for automobile and truck access. This is further supported by the objectives of improving transit, making streets more walkable and creating a system of bicycle routes.

TDM is described as a development objective for all mixed-use areas, and specifically describes using TDM to:

- Encourage job-generating uses to adopt transportation demand management (TDM) programs that provide incentives for employees to carpool, use transit, walk or cycle to work.
- Encourage employer-assisted housing programs to encourage/enable employees to purchase homes within walking distance of work.

TDM Metrics & Monitoring

With TDM being implemented by various stakeholders at different scales, there may be various methods, metrics and reports used for monitoring TDM. As such, there is no cohesive effort to monitor TDM efforts and impacts among stakeholders offering TDM programs and services in Grand Rapids. However, the City's Commuter Census is an important step in beginning to collect citywide data and information, but there may be additional opportunities to enhance monitoring efforts and increase the amount of data collected.

The following provides a high-level summary of the different monitoring efforts that are or may be taking place.

Regional

The State of Michigan owns, operates, and provides access to over 250 carpool parking lots throughout the state, many of which are located in Grand Rapids. The usage of these lots may be monitored, however, currently that information may not be directly shared with the City.

The Rapid manages the Vanpool and West MI Green Rides programs, and uses platforms that have many reporting capabilities, such as monitoring logged trips and participation. Similarly, this information has not been organized in a way where it is shared for citywide TDM monitoring.

Citywide

Currently, the City does not have discrete metrics to measure the success of TDM. However, the 2019 Grand Rapids Strategic Plan identified several draft metrics for measuring the success in achieving the objectives of the Mobility section, which indicates that the City will need to work towards monitoring their success towards achieving the targets. The City is currently in the process of setting up monitoring plans and developing KPI frameworks and dashboards.

In addition to working on setting up monitoring plans, Mobile GR has been supporting monthly challenges in attempt to keep Active Commute Week participants engaged and logging throughout the year, and to track participation annually. However, these monitoring efforts are not currently tied to other efforts.

The City also tracks quarterly ridership for DASH, Route 19 and Silver Line to report to the Mobile GR Commission. This has previously been paired with assessments of parking trends in satellite surface lots. This reporting is not intended for broader-based TDM efforts and does not

have a specific dashboard or monitoring tool and is compiled manually by City staff using data from The Rapid.

City of Grand Rapids Commuter Census Survey (2017)

Mobile GR and the Grand Rapids Chamber of Commerce collaborated to produce the 2017 Grand Rapids Commuter Census, fulfilling one of the year two action items from the GR Forward: Parking and Mobility Study. The Commuter Census is a voluntary online survey, designed to inform city staff of local commuter trends, so they can develop services and programs to better meet the needs of the community. The survey is intended to be delivered annually and was distributed by email to people working in a range of industries throughout the city. The 2017 report documents the first year of the survey, which garnered 1,951 responses over an approximately two-month period. The report acknowledges that its email distribution method carries a level of self-selection bias, and notes that this favors people working in “professional, governmental, and non-profit industries.”^[1]

Employer Level

Several employers in Grand Rapids provide employee transportation programs and collect data to evaluate employee commute programs, transit ridership, transit performance. The extent of these efforts likely varies and is not necessarily shared with the City for broader based TDM evaluation efforts.

The 2017 Commuter Census survey was an effort to collect broader based TDM information. However, this effort may not capture all of the information and data collected by employers, as it is targeted at individual commuters.

TDM Delivery & Coordination

Several organizations currently provide TDM programs and services, both public and private, with some coordination between providers. The best examples of this coordination currently exist between Mobile GR, The Rapid, and Downtown Grand Rapids Inc. Many of the goals and objectives of various TDM service providers align with one another, yet, there are opportunities to formally align efforts to yield the greatest impact in achieving TDM objectives. Much of this can be achieved through enhanced collaboration and establishment of a centralized source that ensures citywide and/or regional implementation.

Currently, The Rapid is a key provider of publicly available TDM services, several of which are outlined later in this report. However, while their mission is to create, offer, and continuously improve a flexible network of regional public transportation options and mobility solutions, they place more of an emphasis on transit services and may not be able to sufficiently deliver citywide TDM objectives.

The GR Forward Parking and Mobility Study identified Mobile GR as the organization that should serve as the hub for mobility information, collaboration and transportation solutions for all users of the transportation system. The report suggested that the organization should be involved in all aspects of improving transportation, including working with other City departments on policy and infrastructure projects, coordinating public-private partnerships for new investments in parking and mobility, working at the state and federal level on grants and advancing legislation, and

^[1] Mobile GR & Parking Services, “Grand Rapids 2017 Commuter Census,” City of Grand Rapids.

working with individuals to help develop commuting solutions. Mobile GR has begun to demonstrate how their department can play a core role in bringing together key stakeholders, for instance, through its efforts with the Mobile GR Commission, which brings together a group of member representatives that work together to ensure that all types of mobility are included in the Department's work.

While Mobile GR is well-positioned to serve as the centralized hub and coordinator for citywide TDM, limited internal capacity and funding may be a barrier to effectively delivering TDM programs and services. This highlights the need to strategize around collaboration, resource pooling, securing additional funding, and strengthening TDM tools.

TDM Funding

Currently, several agencies fund individual TDM programs, activities, services and initiatives. Some of the agencies partner with each other and other stakeholder groups, such as coordinating finding and staffing efforts for hosting lunch and learn events, however, these events have not taken place lately due to a lack of resources.

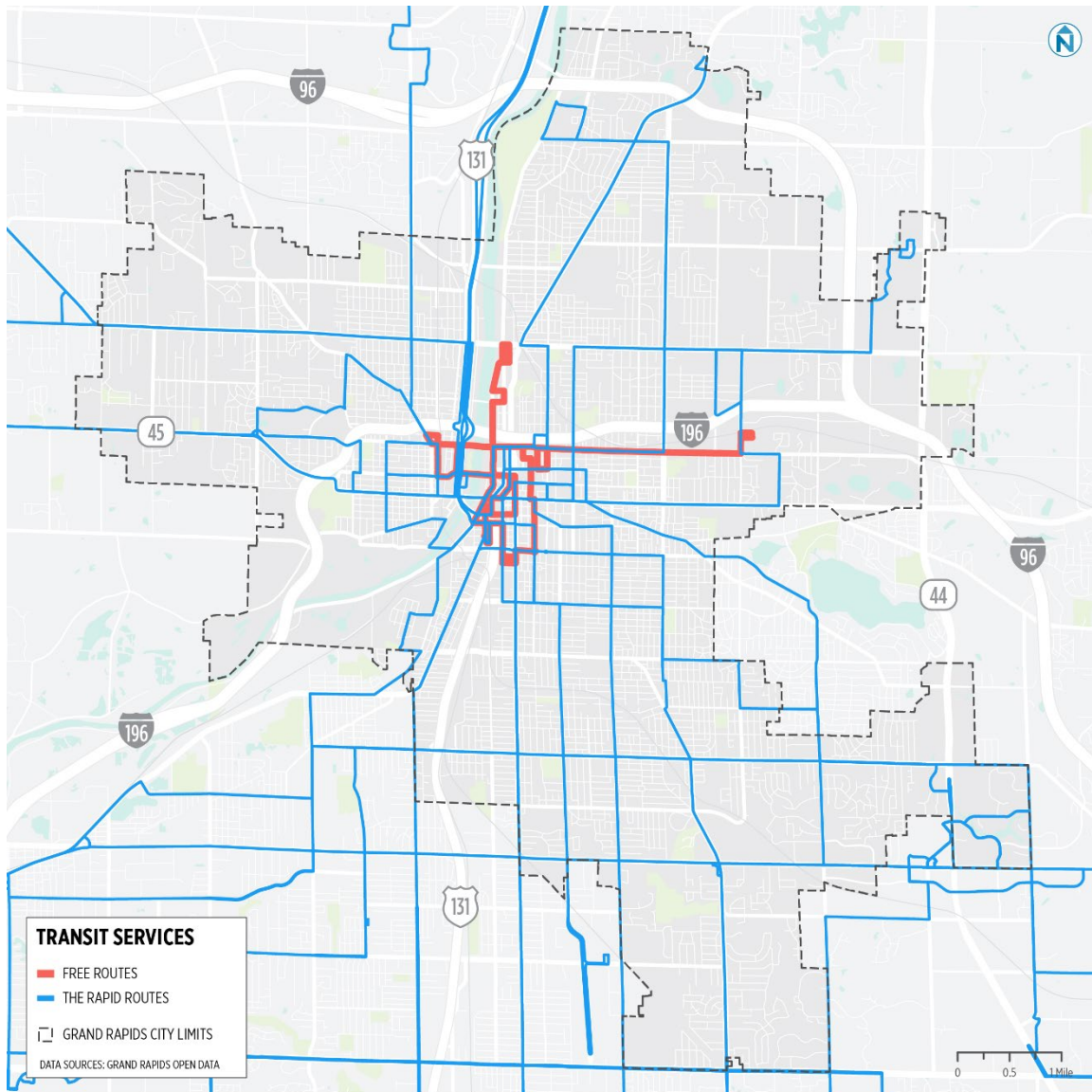
Existing TDM programs and services are funded by several agencies, including:

- Michigan Department of Transportation
- Grand Valley Metropolitan Council (with some financial support via CMAQ funding)
- City of Grand Rapids (including Mobile GR)
- The Rapid (with some financial support via CMAQ funding)
- Mobile GR

While these agencies fund individual TDM efforts, they are not necessarily cohesively funded projects.

MULTI-MODAL TRANSPORTATION NETWORK OVERVIEW

Public Transit Services and Resources



Note: The fare-free routes indicated above in red include DASH routes, Route 19, and the downtown segment of the Silver Line, and are also operated by The Rapid.

Grand Rapids and the surrounding area are served by the Interurban Transit Partnership (The Rapid). The Rapid offers a wide variety of services to meet the needs of a large service area that has population and employment densities ranging from very-low rural densities to higher urban densities. The Rapid's services consist of the following:

- Fixed-Route – The Rapid operates 23 full-time fixed bus routes, including one bus rapid transit (BRT) route (a second BRT route (Laker Line) is scheduled to open in Fall 2020), and further operates a selection of specialized for Grand Valley State University, Grand

Rapids Community College and Ferris State University. Full-time fixed-route services generally operate at frequencies of 15-30 minutes at peak times and 30-60 minutes on weekdays and 30-60 minutes on the weekend. Single-ride fares on fixed-route services are \$1.75, and weekly and monthly passes are also available. Reduced fares and passes are also available for school-aged students, older adults, and people with disabilities.

- **GO!Bus and RideLink** – GO!Bus is a shared ride, advanced reservation, ADA paratransit service that is intended to provide a comparable level of service as The Rapid's fixed-route buses. RideLink is a network of area transportation providers that offers transportation to persons aged 60 or older within Kent County. In addition to The Rapid, other providers in the RideLink network include Hope Network Volunteer Transportation, Senior Neighbors, Kent County Community Action, United Methodist Community House.

The City of Grand Rapids, through the Mobile GR Department, provides the Downtown Area Shuttle (DASH), a system of free buses that connects key Downtown locations and provides access to multiple off-street parking locations. DASH is solely funded by revenues generated from parking (and not property or income taxes) and is operated by The Rapid. DASH routes, including Route 19, and the downtown portion of the Silver Line operate fare-free.

DASH service was expanded in 2018 to include later operating hours and weekend service.

The Grand Rapids Autonomous Vehicle Initiative (AVGR) is an autonomous shuttle pilot program that the city is running through the summer of 2020. The pilot, which runs four six-seat electric autonomous shuttles, follows the existing DASH West Route.

Figure 2 Fare-Free DASH & Rapid Downtown Connectors

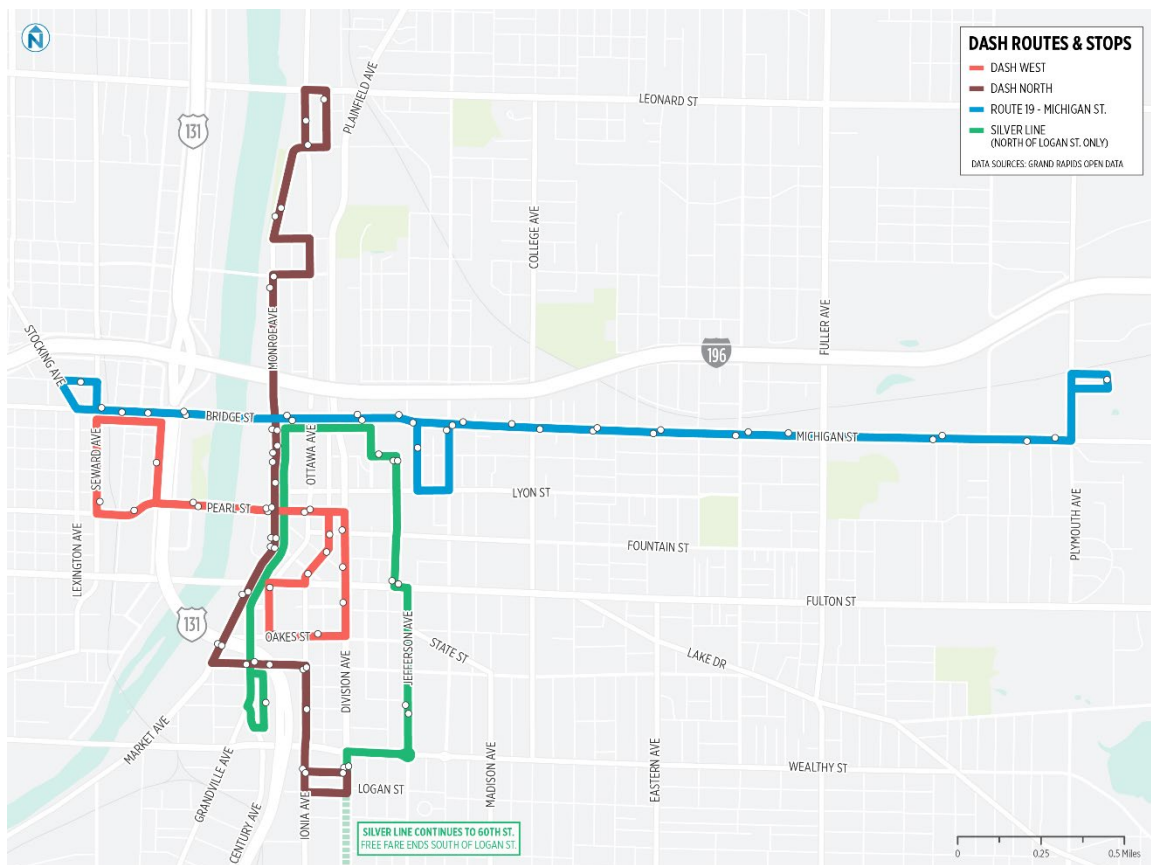


Figure 3 Service Characteristics of DASH Shuttles

Service	Frequency (mins)	Span of Service			
		Monday - Wednesday	Thursday - Friday	Saturday	Sunday
Downtown Area Shuttle (DASH)	8	6:30am - 10:30pm	6:30am - 1:00am	10:00am - 1:00am	10:00am - 8:00pm

Active Mode Networks

Walking Networks

Comfortable sidewalk and street-crossing conditions help reduce parking demand by facilitating greater walking trips and encouraging drivers to park once and walk between local destinations, rather than driving and re-parking. Grand Rapids has improved the pedestrian network with widened sidewalks, high visibility crosswalks, road diets, and pedestrian signs and signals in Downtown and several neighborhood commercial districts. However, there are still many opportunities to improve conditions, especially in annual and seasonal facility maintenance (including snow removal).

Bicycling Networks⁹

Grand Rapids has made considerable recent advances in the provision of bike infrastructure. As of 2018, the City has over 90 miles of bicycling facilities. However, about 80% of the bicycle network is not separated from motor vehicle traffic, as about 66% is made up of conventional mixed-traffic bike lanes and paved shoulders, and another 14% is made up of signed or marked “shared-lane” routes. Most of the separated bicycle network that does exist consists of the off-street paved trails along or near the Grand River.

Figure 4 Existing and Proposed Bicycle Network

Facility Type	Existing Facility Miles*	% of Network	Proposed Facility Miles	Miles Converted to New Type	Total Proposed Miles	Proposed % of Network
Bicycle Lanes (and Paved Shoulders)	59.2	65%	45	-18.5	85.7	35%
Buffered Bicycle Lanes	2.1	2%	2	-0.5	3.6	1.5%
Advisory Bicycle Lanes	1.2	1%	0	-	1.2	0.5%
Signed Bicycle Route/Bicycle Boulevard	1.7	2%	81.9	-	83.6	34%
Marked Shared Lanes	10.4	12%	1.7	-7.6	4.5	2%
Separated Bikeways	2.7	3%	23.6	-	26.3	11%
Off-Street Paved Trail/Sidepath/Connector Sidewalk	13.4	15%	26.9	-1.2	39.1	16%
Total	90.7*	100%	181.1	-27.8	244	100%

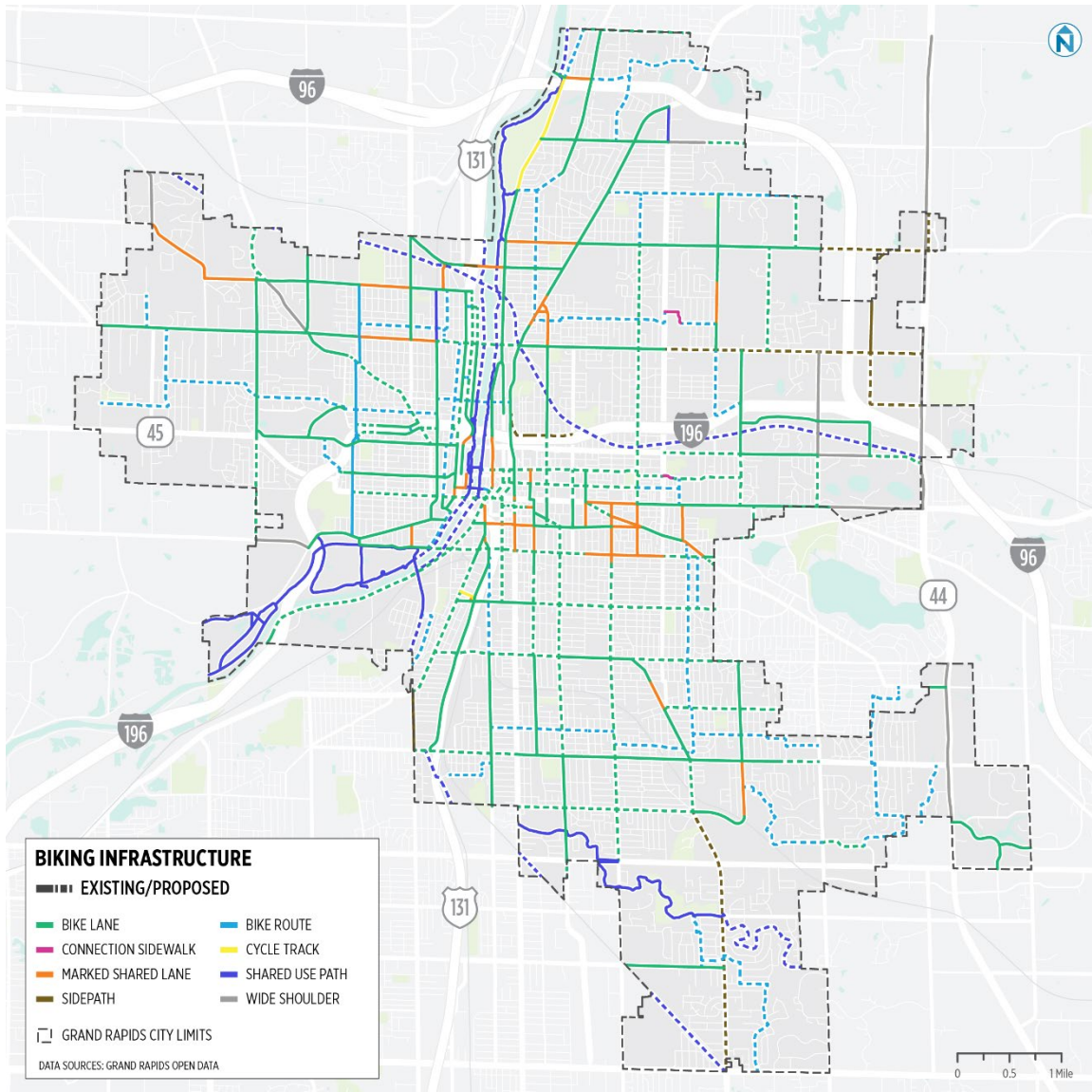
* Figures do not include existing on-street facilities within the City that are under the jurisdiction of the Michigan Department of Transportation or Kent County (Parks, Road Commission).

** Total proposed facilities include both new facilities and upgrades to existing bicycling facilities and is not solely comprised of new corridors.

⁹ [DRAFT Grand Rapids Bicycle Action Plan](#)

The 2019 Grand Rapids Bicycle Action Plan proposes 181 additional facility miles, including converting about 28 miles of existing facilities, which would increase the bicycle network to 244 miles. However, nearly half of that proposed increase (about 85 miles) is made up of signed or marked “shared-lane” routes that have proven ineffective in attracting or protecting novice riders.

Figure 5 Existing and Proposed Bicycle Network



Bike Parking

Bicycle parking can be found in Downtown Grand Rapids and some neighborhood business districts as well as outside some libraries, museums and other community destinations. Bicycle lockers are available in the Area 9 Lot (12 capacity – 3 reserved and 9 available), Pearl Ionia Ramp (capacity for 10, 8 reserved, 2 available), and Government Center (capacity for 12 – 7 reserved and 5 available) at a cost of \$5/month at each facility. However, there are many neighborhood and business districts, segments of Downtown, and other destinations that lack secure and convenient bicycle parking.

Currently, most new bicycle parking is being installed by:

- The City of Grand Rapids in the public right-of-way, or at parks, when reconstruction renovation projects occur.
- Business Improvement Districts (BID) and Corridor Improvement Authorities (CIA) in the public right-of-way or onto their business's private property in their districts.
- Developers at new developments, primarily for commercial and retail uses, as required by City regulations.
- Businesses and property owners, voluntarily, either in the public right-of-way or on or inside their private property.

Bicycle Repair Facilities

Bicycle repair facilities have been installed for public use by Downtown Grand Rapids, Inc (DGRI), with additions by Mobile GR, including stations in the Area 9 Lot and the Ottawa-Fulton ramp. Public bicycle repair stands/pumps are also being installed in some city parks with support from groups like the Uptown BID and Kent County Health Department.

USER-FOCUSED TDM PROGRAMS AND SERVICES

“Systemic” TDM programs are designed to help manage demand through interventions in policy, development, system management, and enforcement of both land use and transportation, such as those highlighted in the previous sections. “User-focused” TDM programs and services are designed to help provide individual network users with additional mobility options and resources, or to help guide users towards, or encourage users to utilize, mobility options that are already available. There are two types of user-focused TDM programs and services:

- **Open-access** – programs and services that are available and open for anyone to use. Open access programs and services are often funded and provided by a public entity or special interest organization.
- **Limited-access** – programs and services that are limited to specific users. Limited-access programs and services are typically provided by an organization (e.g. businesses or college campuses), or private concern (e.g. residential complexes), exclusively to members of its community.

Open-Access TDM Programs and Services

The most prominent provider of open-access TDM in Grand Rapids is West Michigan Rideshare, which is a service administered by The Rapid. These programs are primarily targeted toward workforce commuters, but may benefit other trip types as well. Additional known providers in Grand Rapids include:

- Mobile GR
- Michigan Department of Transportation (MDOT)

Carpool and Vanpool Services

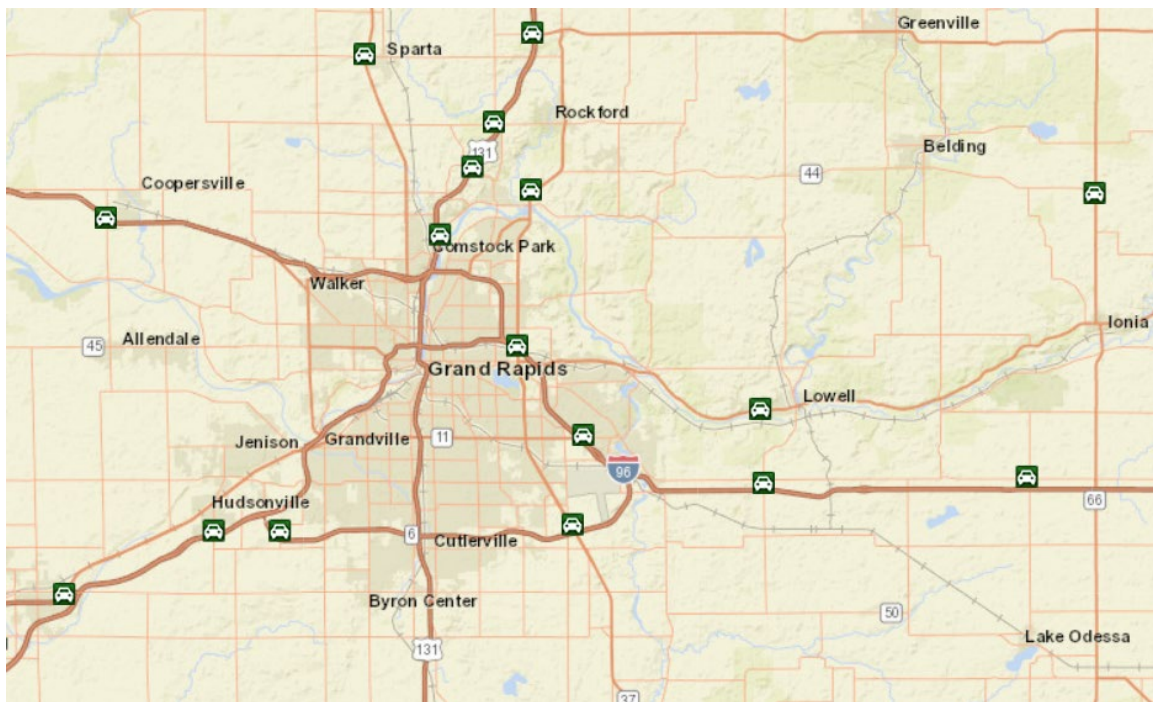
*Rideshare Matching (West Michigan Rideshare)*¹⁰

West Michigan Rideshare promotes and helps to facilitate alternatives to driving alone, primarily by providing a platform through which users can offer, connect to, or find a group to initiate a carpool, vanpool, or bikepool. West Michigan Rideshare also works with employers to develop rideshare options for their employees.

*Michigan Carpool Parking Lot Program (MDOT)*¹¹

The State of Michigan owns, operates, or otherwise provides access to over 250 parking lots throughout the state, many of which are located in Grand Rapids and its immediate area. Lots and spaces provided through the program are provided free of charge.

Figure 6 MDOT Carpool Lot Locations



*The Rapid Park and Ride*¹²

Rapid bus service serves the following park and ride lots:

- The Rapid Lot at 60th and Division
- Mobile GR Lot at Burton and Division Avenue
- Cascade Meijer on 28th Street and Kraft Avenue
- Standale Meijer at Lake Michigan Drive and Wilson Avenue
- Alpine Walmart at Alpine Ave and Henze Drive

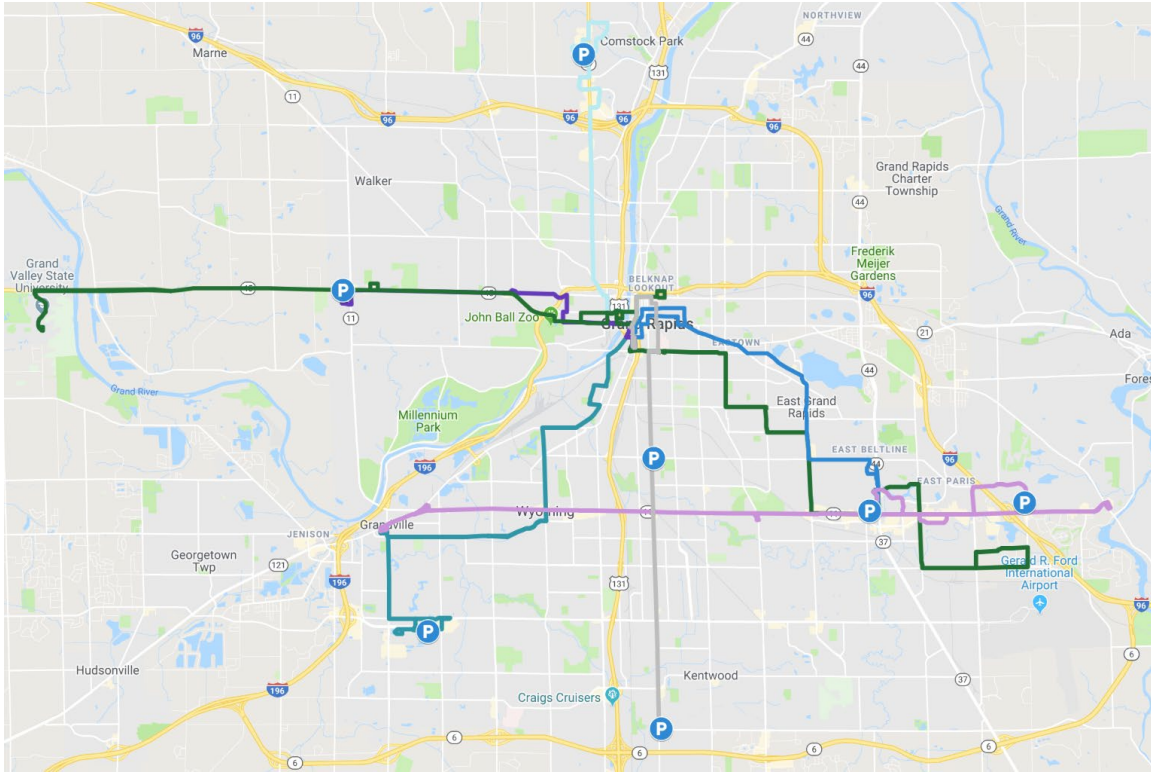
¹⁰ <https://www.wmrideshare.org/>

¹¹ https://www.michigan.gov/mdot/0,4616,7-151-9615_11234---,00.html

¹² <https://www.grandrapidsmi.gov/Directory/Guides/Downtown-Commuter-Resource-Guide#section-9>

- Woodland Mall Hub at 28th Street and Mall Dr
- Meijer at Century Center St and Ivanrest Avenue near Rivertown Crossing

Figure 7 Park and Ride Locations with Corresponding Rapid Routes



RapidVan Vanpooling (West Michigan Rideshare)¹³

The Rapid's "RapidVan" Vanpooling program owns, insures, and maintains vans for vanpooling groups. Participation in RapidVan requires a minimum of four members, and costs \$500-\$700 per month for use of the vehicle, depending on the number of miles driven.

MichiVan Commuter Vanpools (MDOT)¹⁴

Michigan's Department of Transportation offers people a vanpool program through Enterprise Rideshare. The van is owned, maintained, and insured by Enterprise. Members of the vanpool pay a monthly fee to use the service, which varies based on the van and the distance being driven. The service includes a guaranteed ride home program.

¹³ <https://www.wmrideshare.org/vanpooling>

¹⁴ https://www.michigan.gov/mdot/1,1607,7-151-9615_11228---,00.html

Transit Services

Free Downtown Shuttles + Buses

The Rapid and Mobile GR run fare-free bus and shuttle services in Downtown Grand Rapids and to select areas outside of Downtown. These routes include all DASH routes, Route 19, and a fare-free zone of the Silver Line BRT.

Discounted 10-ride pass for students¹⁵

Rapid allows students to purchase a 10-ride pass at a 20% discounted rate. Currently, students must provide a valid school ID to purchase a student 10-ride card ticket, and it is only applicable to the paper tickets which The Rapid currently sells. However, these cards will soon be phased out. Additionally, The Wave, the pay-as-you-go smart card, does not have a student rate and 10-ride options can be purchased for \$13.50.

Commute-Support Services

Guaranteed Ride Home (West Michigan Rideshare)

West Michigan Rideshare offers a Guaranteed Ride Home Program which covers the cost of transportation of someone who needs to leave work earlier or later than planned and regularly engages in an alternative commute. The program reimburses people up to \$55 for a trip. This program may be used 4 times annually.

Wheels to Work

Wheels to Work is a ride-to-work program that operates semi-flexible purpose-built routes in Kent County for workers who need transportation that goes right to their workplace. Routes are designed based on need, and users access neighborhood-based hubs, each serving as a pick-up and drop-off point. The program operates on a shared-fare plan wherein the employee and employer share a flat fare. Wheels-to-work is operated by Hope Network.

Downtown Commuter Resource Guide¹⁶

The City has developed a website that lists and explains programs and services about the different ways to commute Downtown. The resource includes programs employers could implement to encourage their employees to walk, bike, or take transit to work. There are also resources for individuals about their options for getting to and around Downtown.

Promotional Programs

Mobile GR Special Events Sponsorship Program¹⁷

The Special Events Sponsorship Program was designed to collaborate with local events on providing mobility resources for event attendees by partnering with organizers of eligible events to market area mobility options and resources. Currently, successful applicants to the program are eligible to receive up to \$10,000 in sponsorship assistance. The program is being redesigned, however, and will include more formalized sponsorship tiers of \$1k, \$2.5k, and \$5k.

¹⁵ <https://www.ridetherapid.org/tickets-fares/purchase-online>

¹⁶ <https://www.grandrapidsmi.gov/Directory/Guides/Downtown-Commuter-Resource-Guide#section-2>

¹⁷ <https://www.grandrapidsmi.gov/Government/Departments/Mobile-GR-and-Parking-Services>

Active Commute Week¹⁸



Active Commute Week is a collaboration of public, non-profit, and private corporations that hosts eponymous events throughout the year to incentivize people to commute using non-driving modes by offering prizes and other incentives. The collaboration is project managed by Mobile GR, and events are primarily funded by Greater Grand Rapids Bicycle Coalition. In addition to the main week-long event, monthly challenges have been added in an effort to transform the effort into a year-long program.

Limited-Access TDM Programs and Services

Several employers and educational institutions in Grand Rapids provide transportation benefits to their employees or communities, including free or discounted parking and TDM programs. (Figure 8)

Figure 8 Commute Survey Respondents Receiving Transportation Benefits from an Employer

Benefit	Estimated Cost per Month	% of Respondents Receiving Benefit from Their Employer
Provided or discounted parking	\$48 - \$154	72%
On-site bicycle parking	\$0 - \$20	23%
Flexible schedule	N/A	19%
Parking cash out	\$48 - \$154	9%
Telework and commuting	N/A	7%
Provided or discounted bus pass	\$48	7%

Source: Grand Rapids 2017 Commuter Census

While limited-access programs can operate within an overarching strategic framework, providers in Grand Rapids generally operate independently. Benefits available to affiliates at a selection of major Grand Rapids employers are shown in Figure 8. The employers include:

- City of Grand Rapids
- Spectrum Health
- Grand Valley State University (GVSU)

¹⁸ <https://www.acwgr.org/>

TDM EXISTING CONDITIONS ASSESSMENT | GRAND RAPIDS EED & MOBILITY STUDY
City of Grand Rapids

- Grand Rapids Community College (GRCC)
- Grand Rapids Public Schools (GRPS)

Figure 9 TDM Benefits Available at a Selection of Major Grand Rapids Employers

Benefit	Mode	Provider	Details (if available)
Parking cash-out	N/A	City of Grand Rapids	Eligible employees who forgo a monthly permit are paid up to nearly the full amount of what the department pays for the permit, depending on the department.
		Spectrum Health	In-lieu of providing on-site parking, Spectrum provides employees with a \$75 commute stipend.
Transit Subsidies	Transit	Spectrum Health	Employees may ride The Rapid transit for free.
		GVSU	Students, faculty, and staff can ride The Rapid fare free with University ID. ¹⁹
		GRCC	GRCC and The Rapid offer a semester-long unlimited bus pass that is valued at a 30% discount. ²⁰
Transit Subsidies	Transit	GRPS	GRPS offers discounted bus passes to students meeting _____ eligibility requirements.
Shuttle Service	Transit	GVSU	Students, faculty, and staff can ride the University's buses free of charge.
		GRCC	Shuttles connect the main campus to university-leased parking and the DeVos campus.
Bike Rentals	Bike	GVSU	Bikes can be rented for \$5 for up to one week, and \$25 for one semester (rentals may be extended). A lock, bike permit, and bicycle maintenance are provided with the bike rental. ²¹
End-of-trip facilities	Bike/Walk	Spectrum Health	Secure bike lockers and showers.
		GVSU	Showers are available to faculty, staff, and students. ²²
	Bike	GRCC	Secured bike storage is available for students and employees (sign-up required).
		City of Grand Rapids	Showers available in certain City buildings, including Mobile GR's 50 Ottawa facility.
Rideshare Matching	Carpooling	Spectrum Health	Carpool matching program ²³
		GVSU	Carpool matching program ²³
		GRCC	Carpool matching program ²³

¹⁹ <https://www.gvsu.edu/bus/bus-system-80.htm>

²⁰ <https://thecollegiatelive.com/2016/07/rapid-offers-new-semester-long-bus-pass/>

²¹ <https://www.gvsu.edu/rec/outdoors/bike-rentals-policies-and-procedures-15.htm>

²² <https://www.gvsu.edu/bus/ride-a-bike-57.htm>

²³ Through West Michigan Rideshare

Employer-Provided TDM Impacts

Figure 10 shows the ways employer-provided commute benefits influence employee decisions to travel by one mode or another. The Grand Rapids Commuter Census found that employees provided discounted or cost-covered transit passes are 19% less likely to drive alone. This indicates that Grand Rapids employers can motivate their employees to drive less by providing free or discounted transit passes and thereby reduce demand for staff parking at their worksite.

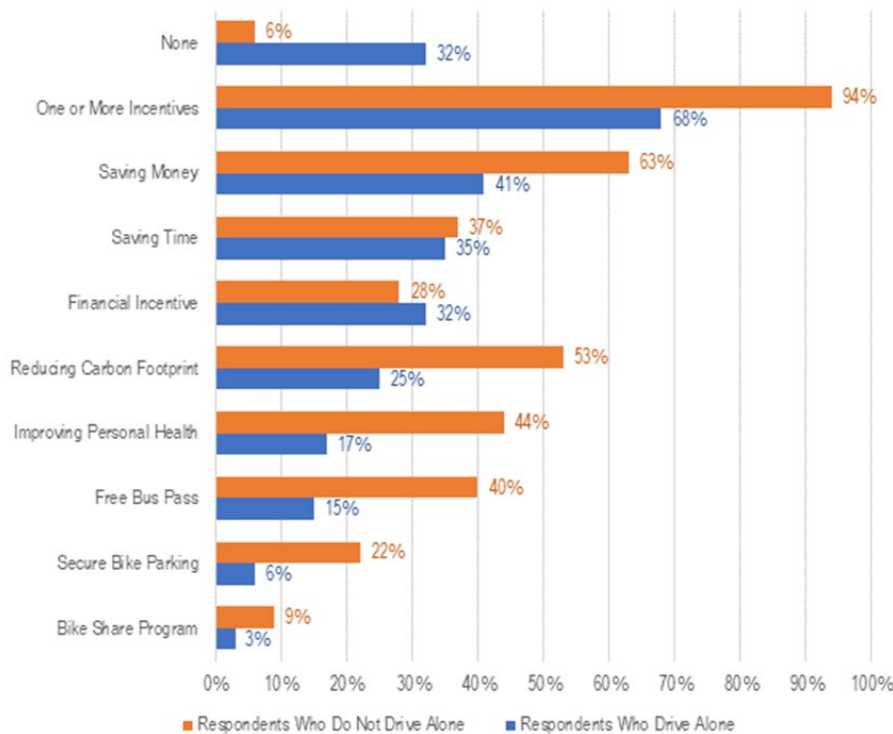
Figure 10 Effect of Employer Commute Benefits on Respondents Likelihood to Drive Alone, 2017

Employer Commute Benefit Offered	Effect on Driving Alone
Provided or discounted parking	7% more likely
Parking cash out	11% less likely
Provided or discounted bus pass	19% less likely

Source: Grand Rapids 2017 Commuter Census

Further, most respondents (68% of those who drive alone, and 94% of those who do not drive alone) reported that “one or more incentives” would encourage them to use mobility options – travel modes outside of driving alone. Respondents cite benefits that save them money or time as motivating incentives to trying a non-drive alone mobility option. Additionally, more than half of respondents commuting by non-drive alone modes indicate that reducing their carbon footprint is another encouraging incentive. (Figure 11.)

Figure 11 Potential Influence of Incentives – Drive-Alone Commuters vs. Other Commuters, 2017



Source: Grand Rapids 2017 Commuter Census